OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/615,606A

Input Set : E:\JULSOYREG.rpt
Output Set: N:\CRF4\02242003\I615606A.raw

<110> APPLICANT: Abad, Mark S.
Buehler, Robert E.
Byrum, Joseph R.
Coombs, Brian E.
Heck, Gregory R.
La Rosa, Thomas J.
Nelson, Donald E.
Shukla, Hridayabhiranjan
Thompson, Michael D.
<120> TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
Plants
<130> FILE REFERENCE: 38-21(15444)C
<140> CURRENT APPLICATION NUMBER: 09/615,606A
<141> CURRENT FILING DATE: 2000-07-13
<160> NUMBER OF SEQ ID NOS: 91663
<210> SEQ ID NO: 1
<211> LENGTH: 557
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB5027-001-Q1-P1-H*
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tttctgttat cattttcgaa acaaaccaaa ttgaaactgt ttgagttttg tttagaaggc 120
tgttatgaat gaaaattttga agcttagaaa agcggttagg tagctaggtt tcagtttcag 180
attggttaga gagctttatc atgaagccat taccggcgga gcaaaacggt gaatcagcgc 240
ttaatggaat gcaagaatta attcgagacg ttttttctgac caaaatgtac cagctcgtct 300
attatacctc cgcggatgat ttaatttcat ggaatgaaga tggtaattac ttcatcg 357
<210> SEQ ID NO: 2
<211> LENGTH: 344
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB5027-002-Q1-P1-H*
<400> SEQUENCE: 2
[illegible] 60
[illegible] 120
[illegible] 180
[illegible] 240
[illegible] 300
[illegible] 344
<210> SEQ ID NO: 3

RAW SEQUENCE LISTING DATE: [illegible]
PATENT APPLICATION: US/09/615,606A TIME: [illegible]

Input Set : E:\JULSOYREG.rpt
Output Set: N:\CRF4\02242003\I615606A.raw

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   211> LENGTH: 661
   212> TYPE: DNA
   213> ORGANISM: Glycine max
   220> FEATURE:
   223> OTHER INFORMATION: Clone ID: LIB3027-[illegible]
   400> SEQUENCE: 3
ttagatttca gattgtgggc gtggcagcca gcagcaattat ctctaaactc gaaaaatgga   60
tcagcgaaag ctacgagact cgtccaattc gaaaacgcgt tcagatgcag caccccaaca  120
cgtcactctc acctctaacc gcttcccgcaa ctctcaagct gctgtgaggg agagagagaa  180
agagaagggt gaagggaaaa acgaggatcc aagtgcggca cgaaagttcc taaaggcaga  240
ccgcgagaag ctcagaaggg atcgactcaa cgaacacttc caagagttga gaaacgcgtt  300
agatcctgat agaccaaaga atgacaaggc aactatcctc actgagaacg t           351
<210> SEQ ID NO: 4
<211> LENGTH: 369
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-010-Q1-B1-B7
<400> SEQUENCE: 4
gatgaagctta ttgcgaatgc tgcttacatt ggcactcctg gaaagggtat tcttgctgct   60
gatgttgtcaa cagggacaat tggcaagcgt ttggcagaga tcagtgtaga gaatgttgaa  120
tccaacaggc gtgctcttag ggagctgctt ttcaccgctc ccggtgctct taaatatctc  180
agtggtgtca tcctctttga ggaaactctc taccagagca cagctgcagg caagcccttt  240
gtggaagtct tgaaggaggc tagtgtgctt cctggcatca aggttgacaa gggcacagtt  300
gagcttgctg gcactaatgg agaaaaccac aattcagggtc tagatggcct tggtcagcgt  360
tgcgccaag                                                          369
<210> SEQ ID NO: 5
<211> LENGTH: 346
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-004-Q1-B1-D6
<400> SEQUENCE: 5
caaagagatca aggactgttt gagttatgtt tacagatatt ggactgaaaa gggtatttgt   60
tgggaaagaa attcaaatgt tcaagacatt gatgacacgg caatgggttt cagactatta  120
agatttaaacg gttacaaagt ttcagacgat gtgttcaaga actttgagag aaatggtgaa  180
ttttctgct ttacgggggaa gaccacacaa ggagtgaaag gaatgtttaa tctgtatagg  240
gctaaacaaa tcatgttcac gtgaaagaga attcttgagc acgaaaagca cttctctgcc  300
aaattttttga aggaagaat aacaaaaat gagcttgtaa ataaat                  346
<210> SEQ ID NO: 6
<211> LENGTH: 884
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-005-Q1-B1-F12
<400> SEQUENCE: 6
ctaagaaggg gaagcaaat gtttcttcaa tgatctgttc ccgagctgtt acaactgtca   60
aaggtgtccc tgtcccatat gttgtcgcat tcaagtggtt tgaagcccag gttgctctcc  120
ctctcaaaaa gcttcaatat gttgttgcat tcaagcccaa agatgtgaat
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RAW SEQUENCE LISTING DATE: [illegible]
PATENT APPLICATION: US/09/615,606A TIME: [illegible]

Input Set : E:\JULSOYREG.rpt
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[illegible]
[illegible]
[illegible]
[illegible]
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166 <211> LENGTH: 334
167 <212> TYPE: DNA
168 <213> ORGANISM: Glycine max
170 <220> FEATURE:
171 <223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-F5
173 <400> SEQUENCE: 7
175 aattaccttc agaagctgtc gttgtaaatg ttacatgtgg tagtggacgt ggtggtttac 60
177 ctaccactgc ttggattagt tctgcagtta acaatcgctc ctcagatatc aacaaaaaga 120
179 ttcgcacagc acttgggaaa ggtaagaaaa ttgttttttct tactagagtt gatccttttc 180
181 cagtagctct actggctgtt cttttggcgg ttaagaatca aattctgagt tccaacgcca 240
183 ctaaccctat gctgacgcga cttcttgaga actgtaagag tctcaaatat ctggttgatg 300
185 agtgtccttt tgcatttgtg aactagtatg taat 334
188 <210> SEQ ID NO: 8
189 <211> LENGTH: 338
190 <212> TYPE: DNA
191 <213> ORGANISM: Glycine max
193 <220> FEATURE:
194 <223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-F6
196 <400> SEQUENCE: 8
198 cttgccagaa ccggcccaat tgaacacttc caaggaaata agcatcggaa cgtcccaacc 60
200 tgaacaaaat gcttccgctt catctcaccc tataagaccc aaacaaggca acaccaccat 120
202 ccaacagata aaaaagcaca ttgcaaagga aacgcgacca aaacaaaacc ccaattcacc 180
204 [illegible] 240
206 [illegible] 300
208 [illegible] 338
211 <210> SEQ ID NO: 9
212 <211> LENGTH: 297
213 <212> TYPE: DNA
214 <213> ORGANISM: Glycine max
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-F8
219 <400> SEQUENCE: 9
221 [illegible] 60
223 [illegible] 120
225 [illegible] 180
227 [illegible] 240
229 [illegible] 297
[illegible] <210> SEQ ID NO: 10
[illegible] <211> LENGTH: [illegible]
234 <212> TYPE: DNA
[illegible] <213> ORGANISM: Glycine max
[illegible] <220> FEATURE:
[illegible] <223> OTHER INFORMATION: Clone ID: [illegible]-Q1-B1-G1
[illegible] <400> SEQUENCE: 10

RAW SEQUENCE LISTING

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<210> SEQ ID NO: 11
<211> LENGTH: 359
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB5027-011-Q1-B1-G2
<400> SEQUENCE: 11
aacttattaa cacttcctt agttcaatat ggggaagccc ttcttcactc tctctctttc 60
ttccctttgc ttgctactct tgtcgagtgc atgctttgct attacctcca gcaagttcaa 120
cgagtgccaa ctcaacaacc tcaaccacgtt ggaacccgac caccgcgttg agtccgaagg 180
tggtcttatt gaaacatgga acttcaaca tcctgagctg caatgcgccg gtgtcactgt 240
ttccaaacgc accctcaacc gcaacggcct ccacttgcca tcttactcac cttatcccca 300
aatgatcatt gtcgttcaag ggaagggagc aattggattt gcatttccgg gatgtcctg 359
<210> SEQ ID NO: 12
<211> LENGTH: 344
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: (1)..(344)
<223> OTHER INFORMATION: unsure at all n locations
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB5027-011-Q1-B1-G6
<400> SEQUENCE: 12
nggcttgana tnaatttcta gtcttttcct cacaaattgg tgcagtttgg agagattcag 60
gaaaaagttg tattgaaatt ttcacaagag gaatttctta cagcttggtc aactcaggtg 120
cgtcctgcaa caactctgtt ggctgatggg tgtccatatt tgtatgcaat ggtgcatgat 180
agttcagtgt ctacaatacc aggtgatttt gtcattggtg tcaagttgac aaccataaac 240
aatatgtgtg catatgggct caatcctggt atttcaggtt ctcgtctttt gggcaccatt 300
cctcagtcca tttcacagca nactgtttgg aatcaaatgg caac 344
<210> SEQ ID NO: 13
<211> LENGTH: 234
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB5027-011-Q1-B1-G7
<400> SEQUENCE: 13
nnnctgagca tcaaatttca gtcttttcct cacaaattgg tgcagtttgg agagattcag 60
gaaaaagttg tattgaaatt ttcacaagag gaagtttgtt cagcttggtc aactcaggtg 120
cgtcctgcag gaactctgtt ggctgatggg tgtccatatt tgtatgcaat ggtgcatgag 180
agttcagtgt ctacaatacc aggtgatttt gtcattggtg tcaagttgac aaca 234
<210> SEQ ID NO: 14
<211> LENGTH: 34
<212> TYPE: DNA

RAW SEQUENCE LISTING
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<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-H1-F1
<400> SEQUENCE: 14


```
                                                                      60
                                                                     120
                                                                     180
                                                                     240
                                                                     300
                                                                     336
```


<210> SEQ ID NO: 15
<211> LENGTH: 330
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-H2
<400> SEQUENCE: 15


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tacccttgct gattacaaca tccagaaaga gtccactctt cacttggtac tccgtctacg  120
tggtggaatg caaatctttg ttaagactct aaccggaaag acaatcaccc ttgaggtgga  180
gagctctgac accattgaca atgttaaggc taagattcaa gacaaagagg gtatccccac  240
agaccaacat aggctcatct ttgctggaaa gcagctagaa gatggccgaa cctiggctga  300
ttacgaacat ccaaaaagaat ctaccctcca                                  330
```


<210> SEQ ID NO: 16
<211> LENGTH: 258
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-H4
<400> SEQUENCE: 16


```
ggctcgagct ttgagatcac cccagagaaa aaccccccag ttcgggactt ggatatcttc   60
ctcagtattg tggatatgaa cgatggagct cttcttctac cacacttcaa ttcaaaggcg  120
atagtgatac tggtaattaa tgaaggagat gcaaacattg aacttgttgg cctaaaagaa  180
gaacaacagg agcagcaaca ggaagagcaa ccttiggaag tgcggaaata tagagccaaa  240
ttgtctgaag aagatata                                                258
```


<210> SEQ ID NO: 17
<211> LENGTH: 113
<212> TYPE: DNA
<213> ORGANISM: Glycine max
<220> FEATURE:
<223> OTHER INFORMATION: Clone ID: LIB3027-011-Q1-B1-H6
<400> SEQUENCE: 17


```
                                                                      60
                                                                     113
```


<210> SEQ ID NO: 18
<211> LENGTH: 366
<212> TYPE: DNA
<213> ORGANISM: Glycine max

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/615,606A

Input Set : E:\JULSOYREG.rpt
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 311
Seq#:55; N Pos. 275
Seq#:56; N Pos. 23
Seq#:61; N Pos. 60,72
Seq#:65; N Pos. 113
Seq#:66; N Pos. 253
Seq#:73; N Pos. 20
Seq#:76; N Pos. 292,344
Seq#:80; N Pos. 339,348
Seq#:83; N Pos. 74,101,139,177
Seq#:86; N Pos. 362
Seq#:87; N Pos. 337
Seq#:89; N Pos. 232,277,358
Seq#:95; N Pos. 318
Seq#:101; N Pos. 51,62,65
Seq#:107; N Pos. 290
Seq#:146; N Pos. 360
Seq#:151; N Pos. 161
Seq#:156; N Pos. 43,65
Seq#:165; N Pos. 315
Seq#:182; N Pos. 21
Seq#:183; N Pos. 300
Seq#:188; N Pos. 148
Seq#:191; N Pos. 329
Seq#:203; N Pos. 103
Seq#:209; N Pos. 385
Seq#:214; N Pos. 324
Seq#:222; N Pos. 361
Seq#:232; N Pos. 395
Seq#:275; N Pos. 9
Seq#:281; N Pos. 376
Seq#:286; N Pos. 313
Seq#:290; N Pos. 183
Seq#:303; N Pos. 4,184
Seq#:320; N Pos. 370
Seq#:341; N Pos. 29
Seq#:344; N Pos. 154
Seq#:351; N Pos. 452
Seq#:354; N Pos. 240
Seq#:361; N Pos. 249
Seq#:372; N Pos. 385
Seq#:371; N Pos. 402
Seq#:380; N Pos. 468
Seq#:384; N Pos. 44

RAW SEQUENCE LISTING ERROR SUMMARY

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Input Set : E:\JULSOYREG.rpt
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Seq#:442; N Pos. 11, 14
Seq#:444; N Pos. 3[illegible]
Seq#:445; N Pos. 7[illegible]
Seq#:4[illegible]; N Pos. 1[illegible]
Seq#:4[illegible]; N Pos. 2[illegible]
Seq#:4[illegible]; N Pos. 2[illegible]
Seq#:4[illegible]; N Pos. 3[illegible]

VERIFICATION SUMMARY
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Input Set : E:\JULSOYREG.rpt
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L:1 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
M:341 Repeated in SeqNo=[illegible]
L:1[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:1[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:1708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:[illegible]
L:1744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:240
M:341 Repeated in SeqNo=76
L:1897 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:300
L:1961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:60
M:341 Repeated in SeqNo=83
L:2035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:360
L:2063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:300
L:2114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:180
M:341 Repeated in SeqNo=89
L:2261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:300
L:2392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:0
M:341 Repeated in SeqNo=101
L:2587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107 after pos.:240
L:3447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:300
L:3545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:120
L:3607 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:0
M:341 Repeated in SeqNo=156
L:3861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:165 after pos.:300
L:4281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:182 after pos.:0
L:4348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:240
L:4361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:300
L:4491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:191 after pos.:300
L:4786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:203 after pos.:120
L:4939 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:209 after pos.:360
L:5061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214 after pos.:300
L:5268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:222 after pos.:360
L:5509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:232 after pos.:360
L:6413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:270 after pos.:0
L:6558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:6674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:300
L:6[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:303 after pos.:0
M:341 Repeated in SeqNo=[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:360
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:0
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:[illegible]
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:240
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:240
L:[illegible] M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:[illegible] after pos.:300

VERIFICATION SUMMARY

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